

Notes on Chalcid Flies, Chiefly From California

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The following descriptions are chiefly from specimens sent by the Department of Zoology of Pomona College.

Eusandalum californicum n. sp.

Female: Similar in every respect to *coquillettii* Ashmead except as follows: The hyaline cross-stripe between the fuscous cross-stripes of the forewing is distinctly narrower than either fuscous cross-stripe (broader than either in the other); the stylus of the abdomen is a little shorter than the ovipositor valves (their extruded portion), both equal in length in *coquillettii*. Otherwise the same. Antennæ 11-jointed, tapering, the club single and no longer than the pedicel, funicle 1 quadrate, 2 longest, clongate, somewhat compressed, over thrice the length of the pedicel. Types compared.

A female from Claremont (C. F. Baker).

Types: Catalogue No. 20357, U. S. National Museum, the female on a tag, a fore wing antenna and hind leg on a slide.

In the U. S. National Museum a female from the Santa Cruz Mountains, California, part of the type of *coquillettii* (now a single female from Los Angeles).

Eusandalum obscurum n. sp.

The type is one female from Easton, Washington (Kincaid). Catalogue No. 20358, U. S. National Museum, the female on a tag. See table.

Eusandalum alpinum n. sp.

The type is a part of the type of *coquillettii* from the Santa Cruz Mountains, California; Catalogue No. 20359, U. S. National Museum, the specimen on a tag. See table.

Eusandalum georgia n. sp.

One female, pinned, Georgia, Catalogue No. 20369, U. S. National Museum. A second female from Washington, D. C. See table.

Eusandalum arizona n. sp.

A female, Santa Rita Mountains, Arizona (Schwarz), May 27. Catalogue No. 20361, U. S. National Museum, tag. See table.

Synopsis of the North American Species of *Eusandalum*. Females. (From the types.)

1. Wings bifasciate, the distal fuscous band at apex. Legs red except the coxae, the antennae wholly concolorous. Ovipositor extruded for over half the length of the abdomen. Scutellum longitudinally lined.

Hyaline band of fore wing distinctly narrower than either fuscous band (one on each side of it); stylus a little shorter than the ovipositor. *californicum* Girault

Hyaline band of fore wing somewhat broader than either fuscous stripe; stylus and ovipositor equal. *coquilletii* Ashmead
2. Wings unifasciate or wholly embrowned or with a large unbroken, fuscous area. Wings wholly infuscated. Scutellum densely punctate like the scutum (in the first species). Propodeum with a lateral sulcus. Ovipositor much extruded.

Legs reddish except the coxae and the first and third femora *ventrad*; more slender than usual, the ovipositor about as in *californicum* but the abdomen is longer, hence the ovipositor is so. Fore wing with a longitudinal white streak caudad of middle. *acmaoederae* Rohwer

Ovipositor extruded for less than a fourth the length of the abdomen, the stylus subobsolete.

Fore wings indefinitely slightly stained; legs reddish except the coxae; scutellum long-lineolated. *obscurum* Girault

Wings infuscated from the bend of the submarginal vein to apex or nearly. Antennae concolorous (compare *obscurum*).

As in *californicum* but the scutellum finely punctate; differs from *acmaoederae* in being more robust, the first and third femora are not metallic *ventrad*, the costal cell is broader, the tip of the fore wing is hyaline for a short distance. *alpinum* Girault

Legs wholly concolorous except the knees and tips of tibiae narrowly and the tarsi; as in the preceding but stylus and ovipositor subequal. *cyaneum* Ashmead

3. Wings hyaline or subhyaline. Antennae concolorous except at extreme base.

Ovipositor extruded for about half the length of the abdomen, the stylus slightly short.

Middle legs except coxae, all knees narrowly, tips of tibiae and the tarsi reddish brown. Postmarginal vein subequal to the stigmal. *hubbardii* Ashmead

Ovipositor extruded for less (or not more) than a third the length of the abdomen, the stylus subequal.

Postmarginal vein subequal to the stigmal.

Legs reddish except the coxae and cephalic femora and tibiae. Scutellum somewhat more distinctly lineolated longitudinally, punctate. Ovipositor short. *hyalinipenne* Ashmead

Postmarginal vein distinctly longer than the stigmal.

Legs concolorous except knees, tips of tibiae and the tarsi. Stylus somewhat shorter than the ovipositor which is a third the length of the abdomen. *georgia* Girault

4. Wings subhyaline. Antennae with the basal fourth of the scape honey yellow.

Postmarginal vein distinctly much longer than the stigmal, twice longer.

Ovipositor extruded for nearly half the length of the abdomen, the stylus a little shorter. Legs honey yellow except fore and hind coxae. *arizona* Girault

All the species have the postmarginal vein shorter than the stigmal or no longer, save where noted; the parapsidal furrows are distinct, but very short, joining before the middle of the scutum from cephalad. The club is usually single, the antennae 11-jointed, tapering-filiform.

Dialinus begini Crawford

One female, Santa Clara County (C. F. Baker).

Elachistus coxalis Howard

One pair, San Mateo County, California, the male; and Laguna Beach, Southern California, the female (C. F. Baker).

The following species is an *Eudecatoma* (there being no distinct substigmal spot but only a very minute one) but for the present I include this segregate within the older one.

Decatoma subimmaculata n. sp.

Female: Length, 2.00 mm. Of the usual habitus and sculpture, the punctuation not coarse.

Honey yellow, the wings hyaline, the following black markings: Ocellar dots obscurely, upper margin of occiput (a crescent), median channel nearly to apex and cephalic margin of the propodeum (except laterad); abdominal petiole and the median line of abdomen dorsad narrowly, from just before apex of segment 2 nearly to the apex of segment 4. Abdomen compressed, segments 2, 4 and 5 subequal, longest, the abdomen glabrous, its petiole about twice longer than wide. Propodeum openly rugoso-punctate, the median channel single, distinct, no median basin. Pedicel black above, nearly twice longer than wide, a little longer than funicle 1, the other four funicle joints subequal, subquadrate. Club 2-jointed, the first joint shortest.

One female, Claremont, California (C. F. Baker); on oak.

Type: Catalogue No. 20400, U. S. National Museum, the female on a tag, the antennae and a caudal leg on a slide.

Differs from *catesbaei* Ashmead (types compared), in being larger, the median channel of the propodeum is distinct for its whole length and does not consist principally of two large foreae, the cross-carina passing *profmad* of it has an area on each side of the meson which runs at first nearly parallel to the channel (the forking) but in the Florida species, this carina continues more or less parallel with the cephalic margin of the propodeum.

Scutellista cyanea Mots

One female, Claremont, California (C. F. Baker).

Cleonymus californicus n. sp.

Female: Length, 4.00 mm.

Dark metallic green, the tegulae, antennae (except the club and pedicel) and the legs (except the concolorous coxae, the apex of caudal femur lateral and the last two pairs of tibiae dorsad more or less), reddish brown, the venation fuscous, the fore wings bifasciate, the first stripe from the base of the marginal vein and broken distad of the middle, the second from the postmarginal vein, obovate in shape, twice the width of the first. The (triangular) head, the thorax and abdomen, scaly punctate, the propodeum and abdomen 2 subglabrous, the distal margins of the abdominal segments glabrous. Propodeum foreolate along the cephalic and caudal margins, and along the median carina on each side, the lateral carina represented by a distinct, curved, foreate sulcus, the spiracle large, subreniform. Scutellum simple. Antennae inserted near the clypeus, a little below the eyes, 11-jointed, the club pointed ovate, acuminate at apex, embraced by the long projection from one side of the apex of the distal funicle joint which reaches to distal three-fourths of the club. Funicles 1 and 2 narrowest, grading into 3, all subquadrate, 4 longest, a little longer than wide and subequal to the pedicel; 8 wider than long. Postmarginal vein a little longer than the slender, curved stigmal, about a third the length of the marginal. Stigmal vein parallel, in general trend, with the costal margin.

Two females, mountains near Claremont (C. F. Baker).

Types: Catalogue No. 20348, U. S. National Museum, the females on tags, a fore wing and an antennae on a slide.

The abdomen is subpetiolate; it was distinctly, quadrately petiolate in a male specimen of *cleonymus depressus* in the U. S. National Museum.

Entedon occidentalis Girault

Several specimens, Claremont, California (C. F. Baker).

Isosoma grande Riley

One winged female, mountains near Claremont, California (C. F. Baker).

Metapleura spectabilis Westwood

One female, Claremont, California (C. F. Baker).